# *The Daedalean*

***Semper Discens***

*Monthly Aerospace Education Publication of the Connecticut Wing of the Civil Air Patrol*



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## SCHEDULE

8 JUN-CTWG Encampment Staff Training

21 JUL0-03 AUG-NESA-Camp Atterbury, IN
27 JUL-CADET Ball-USCGA

10 AUG to17AUG-CTWG Encampment

## SQUADRON AEROSPACE NEWS

*SILVER CITY SQUADRON*
*submitted by*
*Capt Oran Mills*

Capt. Oran Mills and Cadet Greg Lineberry presented an primary Aerospace class to Durham's Boy Scout Troop 270 on May 7th. The role of CAP in search and rescue and community activities was also discussed. Cadet Lineberry spoke about his enjoyable experiences in CAP including his training and encampments which he attended. There were over 25 scouts with some adults present, and there was a lot of interest about flying careers and the magic of what keeps planes in the air.

*THAMES RIVER COMPOSITE SQUADRON*

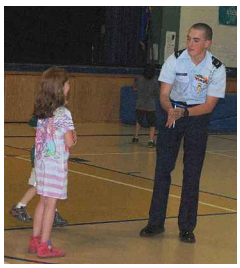
Once again, Thames River Composite Squadron played its part in the annual Ledyard Aerospace Festival. The event is directed by Stu Sharack, a CAP Aerospace Education Member and first winner of CAP's Aerospace National Teacher of the Year Award.

*Cadets Meers and Flynn prepare to demonstrate the precession of the earth's poles using a spinning bicycle wheel.*

The gymnasium of the Gales Ferry School is filled with a wide range of exhibitors: the US Navy, NASA, CATO (Connecticut Amateur Rocket Club), and LifeStar, to mention just a few. The elementary school youngsters for whom this program is designed, move from station to station, participating in the activities and receiving a stamp on their attendance card.

*A Ledyard pupil explores the mysteries of gyroscopic stability under the guidance of Cadet Stout.*

The TRCS team, supervised by Lt Meers and Major Rocketto consisted of Team Commander, C/1Lt Daniels, C/Maj Flynn, C/SrA Meers, and C/Amn Stout. Our table consisted of three display boards explaining CAP's mission and providing pictorial examples of our activities, rockets, CAP books, and CAP recruiting material.



*Cadet Daniels explains how to launch a model helicopter while a young pupil observes, awaiting her turn to try.*

The Cadet team engaged the young visitors in a range of hands-on activities designed to help understand Newton's First Law of Motion, gyroscopic stability, and Bernoulli's Principle. Cadets would explain the underlying science and the youngsters were invited to try out the demonstration item. In the interval, Lt Meers and Major Rocketto would discuss the role of CAP with parents and hand out promotional and recruiting materials.

*"There I was, flat on my back...." C/Maj Flynn is explaining the aircraft panel instruments and gets involved in communicating with a young girl using an unusual set of hand gestures.*

## O FLIGHTS
## POWERED AND GLIDER COMBO

*by*
*Major Paul Noniewicz*

Sunday, April 21st dawned a spectacular day for flying. Visibility was greater than 60 miles and temperatures were comfortable. The plan entailed powered orientation flights for three cadets from Groton to Springfield, Vermont, glider orientation flights at Springfield, and powered O flights on the return to Groton.

*CAP's LET L-23 Super Blanik displays its clean form over Hartness. The glider is manufactured in Czechoslovakia.*
*(photo by Lenny Kimball)*

Preflight preparation included meetings with Majs Noniewicz and Rocketto for instruction in navigation. Each cadet was issued a sectional and required to plan a flight from Groton (GON) to Orange (ORE), Massachusetts to Springfield (VSF) and return. Specifically, they needed to determine courses, distances, and checkpoints which they were expected to identify en-route, an exercise in traditional pilotage.

The crew departed GON at 0730 in CAVU (ceiling and visibility unlimited) weather with Cadet Meers flying from the right front seat and Cadet C/MSgt Ray and Cadet O'Toole working the navigation problems from the rear.

Landing at ORE, the cadets switched seats with O'Toole moving up to the pilot's position and flew the second leg to Hartness State Airport in Springfield.

Arriving at VSF around 0930, our aircraft joined two other CTWG CAP 182s and 13 other cadets. Winds were brisk but glider flights commenced. Ray and Meers each got one flight. O'Toole, whose first flight was curtailed, got a second flight. On the average, each of the CTWG cadets attending received about 20 minutes of glider instruction.

*Cadets O'Toole and Meers hook up glider while Cadet Ray waits in the cockpit.*
*(photo by Lenny Kimball)*

*Cadet O'Toole straps in for his flight.*
*(photo by Lenny Kimball)*

Departing at 1815, the return flight, assisted by a benevolent tailwind carried the sunburned and tired crew back to GON in around and hour!

## COMMANDER'S CUP ROCKETRY COMPETITION

The Cadets of the Thames River Composite Squadron, based at Groton-New London Airport out-pointed four other squadrons to win the Commander's Cup in the annual Connecticut Wing model rocketry contest held at White's Farm in Durham, Connecticut on Saturday. Squadrons represented were Thames River, the Stratford Eagles, the 399th, the 801st, and the 802nd. Approximately 50 officers, cadets, and parents were on site.

*Cadets, under the direction of C/1stLt Daniels demonstrate the core value "volunteer service" as they assist in setting up CATO launch site.*

The six year competition for the silver cup has been a see-saw battle between Thames River and the Stratford Eagles. This year's competition was decided by a single point, 55 to 54 in favor of the Groton cadets.

The contest consists of three divisions. New cadets build simple one stage rockets. More advanced cadets build multi-stage rockets or load carrying rockets which are entered in a second division. The final division is for scale models of historical or current flying vehicles. Each entry is judged on construction, painting, decorations, and, in the case of the historical rocket, a short written essay on its importance or unique features. Each rocket is rated by a panel of five judges and the scores recorded. The best entry in each division form each squadron becomes the basis for a squadron score.

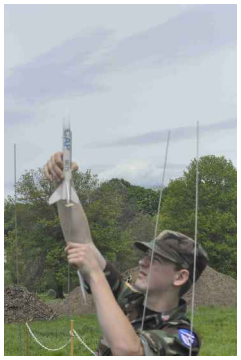
*Stratford Cadets bring their entries to the Range Safety Officer for safety examination and launch approval.*
*(photo by Maj Bourque)*

Each squadron was required to provide one judge. These were 1stLt Sharon Riccio from Stratford, Capt Joseph Bisov form the 399th, Capt Jeffrey Juliano from the 802nd, Maj Roy Bourque from Thames River, and Maj Art Dammers, Wing Internal Aerospace Officer. Maj Stephen Rocketto, CTWG DAE and event coordinator served as recorder.

*The judges huddling.*

Prizes were offered to cadets in each of the four events. They consisted of equipment such as flashlights, compasses, and whistles useful in the field and medallions.

Two Groton cadets, Cadet Senior Airmen Justin Ketcham and John Meers, tied for first in Division One. Second place was also a tie between C/Basic Julia Sebben from Stratford and C/Amn Shawn O'Toole from Thames River.



*Cadet Meers mounts his prize winning rocket on the launch pad.*

*Stratford's Cadet Sebben is congratulated by Maj Rocketto and presented with an LED flashlights for her winning entry.* *(photo by Maj Bourque)*

*Capt Fortes Awards Cadet Taylor his medal for his Division Two winner.* *(photo by Lt Meers)*

In Division Two, Cadet Master Sergeant Keith Trotochaud and C/A1C Joseph Taylor from the 399th tied for first place. In a close second was C/MSgt Elias Bou-Chaine from Stratford.

Division Three honors were earned by Stratford's Bou-Chaine with Cadet Trotochaud and Stratford's C/CMSgt John Riccio in second place. Cadet Sebben held down third.

The Free Style Event, not a part of the Commander's Cup, was sponsored by Captain Kenneth Fortes, head of the Stratford rocketry program. Cadet Bou-Chaine was a clear winner followed by squadron mate Riccio. Thames River's C/1stLt Drew Daniels earned third place.

*Cadet Bou-Chaine, a veteran from last year's event, displays his two medals, flanked by Maj Rocketto and Capt Fortes.* *(photo by Lt Meers)*

The event is supported by CATO, the Connecticut amateur rocket club which provides launch facilities, safety officers, and advice.

*The winning Thames River team led by C/1st Lt Daniels and 2ndLt Meers.*

## NATIONAL AEO SCHOOL

The 12th Annual National AEO School will take place from June 25-29, 2013, at Pensacola NAS, FL. As many of you know, this is a wonderful opportunity for AEOs to learn more about the AE programs, projects, and resources available to them. For more information about the program, go to www.capmembers.com/ae

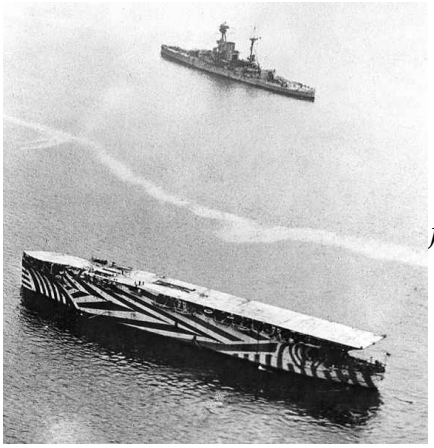
## AEROSPACE CURRENT EVENTS & HISTORY

### *X-47B Drone Launched from Carrier*

The Navy launched a Northrop Grumman X-47B off the *USS George H.W. Bush* last week. The launch was conducted off the Virginia coast, climbed to 1,000 feet, made two practice approaches to the ship and then flew to Patuxent River Naval Air Station for an arrested landing.

*X-47B Departing!*

This is the first launch of an autonomous drone from an aircraft carrier but not the first launch of a drone. In the 1920s and '30s, the Royal Navy, in collaboration with the Royal Aircraft Establishment at Farnborough, experimented with carrier launched drones. Reports indicate the HMS Argus was the ship involved. The Royal Navy's interest was in developing targets for anti-aircraft practice. The earliest example is that of the Fairey Queen, a modified Fairey III biplane.



*A 1918 picture of a dazzle painted HMS Argus, the first of the full deck flat-tops and an experimental platform for many early carrier innovations.*

*(Royal Navy Photo)*

Initial experiments used gyroscope stabilized aircraft controlled by clockwork mechanisms but radio controls were soon adopted. Fairey Aircraft produced the Queen but the model never reached production status. Rather, a modified Dehavilland Tiger Moth was accepted and over 400 built. These were reusable if not shot down and could be landed by radio control.

*DeHavilland DH-82 drone,.*

*(photo by Adrian Pingstone)*

*A more modern Radio Plane QQ-19 on display at Camp Niantic, Conn National Guard.*

An interesting sidelight to the QQ-19 is that the company was formed by Reginald Denny, the movie actor who was a WWI Royal Flying Corps veteran. One of his assemblers, Norma Jean Dougherty, whom, after being "discovered," is better known by her stage name, Marilyn Monroe!

The X-47B differs from the early models in that is it autonomous, programmed from take-off to touchdown. No human interaction is needed from launch to recovery.

## A LOOK AT EASTERN LONG ISLAND SOUND

Once again, under the auspices of Connecticut's Division of Emergency Management and Homeland Security, the Connecticut Wing of the Civil Air Patrol has been again tasked with aerial reconnaissance of Eastern Long Island Sound between Fishers Island and Bridgeport. Activities include examination of transportation and energy transmission infrastructure, assisting the US Coast Guard in boating safety, storm damage assessment, and reporting illegal dumping or pumping of shipboard wastes. Three hub airports, Hartford, Groton, and Danbury serve as the primary bases.

A lot of interesting cultural history and geology is open to study during one of these missions. The complexities of 500 million years of geologic activity are not within the scope of this article. The string of islands, from New York Harbor to Nantucket are the results of two glacial events. The first occurred about 150,000 years ago and the second about 20,000 years before the present. As we fly on a typical patrol, we can see evidence of these geologic events. Nonetheless, it is sufficient to say that the region known as Connecticut is a result of titanic forces which fractured the super continent of Pangaea and the subsequent weathering and glacial activity. The social history covers a much shorter time span. The balance of this article will attempt to touch upon both the glacial and social histories of each point of interest.

The unique glacially conditioned topography of

the sound provides a rich environment for organic matter which in turn makes the region a hospitable place for cultural development. Tidal marshes are common and are the products of deltas, the outwash of melting glaciers, which buried the bedrock in sand and gravel. These deposits gave a foothold for organic materials which developed into the nutrient rich marshlands and fisheries.

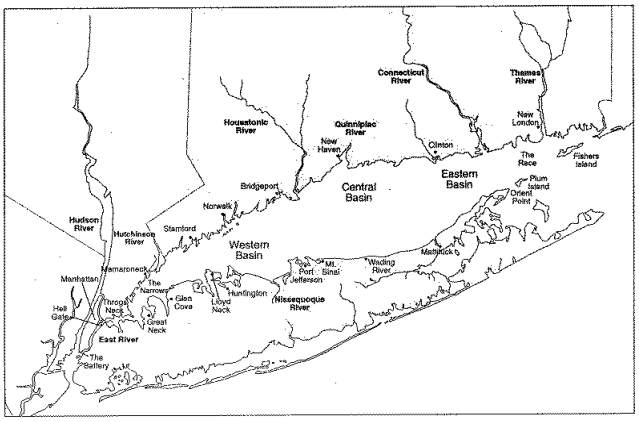
Native Americans flourished and enjoyed the bounty of sea, land, and air with a mixed hunting, gathering, and agricultural economy. These tribes were members of the Algonquian language group and their heritage lives on in the many Indian names. Connecticut itself means "long river," a reference to the major river of New England which roughly bisects the State. The Nehantic, Hammonassett, Poquonnuck, Mohegan, and Pequots in Anglicized form are just a few of the many Indian derived place names in the patrol area.

The earliest European explorers were generally interested in the fabled "Northwest Passage," the short route to the riches of the East Indies. Adriaen Block, a Dutch navigator, the first European to explore the precincts of Long Island Sound, entered the Housatonic River, reached the head of navigation in the Connecticut near present day Hartford, and explored Block Island.

During the Revolutionary War, The State served as the "breadbasket" of the Continental Army and provided a large fleet of privateers which preyed on British shipping. Stonington was bombarded by a British naval squadron and New London was attacked and burned by a force led by Benedict Arnold, a Norwich native. Long Island, Plum Island, and Fisher's Island were raided and provisions seized by the British.

The rivers provided both water power and transport and our harbors provided access to the world's oceans. Whaling brought wealth and venture capital to the state. A clever and hardworking population provided the brain power and factory hands and the fortuitous location of Connecticut in respect to population centers led to the development of what became known as the "American System of Manufacture," mass production made possible by the invention and utilization of precision metal working machinery.. Clever artisans such as Eli Whitney and Samuel Colt, to name two, made Connecticut an industrial giant. Connecticut was a leader in the production of firearms, textiles, machine tools, precision measuring instruments, and clocks. The Connecticut River Valley was the "Silicon Valley" of the nineteenth century and the development of the tool making industry contributed to the rise of the United States as a world power.

The patrol starts at the eastern end of the sound near Great Gull Island flies west southwest over Orient Point and turning west near the Riverhead Oil Terminal. The next turning point is abeam of Port Jefferson and puts the aircraft on a northerly heading towards Bridgeport. About five miles south of Bridgeport's Sikorsky Airport, an east northeast heading is assumed until abeam New Haven at which point a slight turn to starboard allow a flight parallel to the Connecticut shoreline. When the aircraft is south of the Millstone power plant, a turn southward gets the crew back to the starting point at Great Gull. Normally, two circuits are made per sortie, about three hours of flying time.




*Long Island Sound Map prepared by the Marine Sciences Research Center, Stonybrook*

A typical patrol might depart from Groton-New London Airport. The area around the airport is rich in geologic history. The immediate offshore area is treacherous and somewhat dangerous for larger craft. Bartlett's Reef, Goshen Ledge, Sarah Ledge, and the Rocks called Shore, Middle, and

Rapid are all marked by buoys or lights. These are remnants of ridges which, although trimmed by glacial activity, are still high enough to form hazards to maritime navigation. The flat plain of the airport itself is probably an alluvial deposit from the glacial period and a gift to the aviator.

Departing Groton, the aircraft passes over Fisher's Island Sound on the way to the mission start point at Great Gull Island. Just south of the airport, two small islands are visible in Fisher's Island Sound, North and South Dumpling. South Dumpling is a nesting site for gulls and terns. North Dumpling, also known as "The Kingdom of North Dumpling." Overseen by the lighthouse, the island is owned by inventor Dean Kamen, known best for the Segway and as founder of the First Robotics competition. The island sports a replica of Stonehenge and if Kamen is in residence, his Robertson helicopter may be visible.

*The Kingdom of North Dumpling-Note the amphibious vehicle to the left and the model of Stonehenge to the right.*

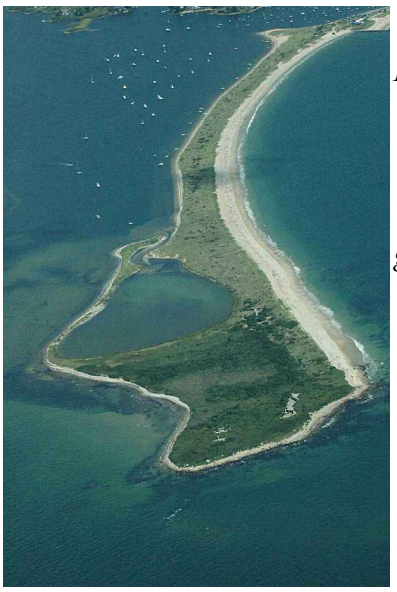
Fisher's Island is the western end of a geological feature called the Charlestown Moraine. The advancing movement of a glacier pushes vast amounts of material in front of it, much like a bulldozer. This material forms what is called a terminal moraine and consists of unconsolidated materials, some derived from rather distant sites. Just east, a long spit of land, a geological feature known as a trombolo, stretches out from Watch Hill, Rhode Island and helps to protect Stonington Harbor. This feature is known locally as Napatree Point.

The impact of the military is clearly visible. The Sound provides an easy access to the Connecticut shoreline and the eastern approaches to the New York metropolitan area. Consider the strategic value of the industries along the Connecticut shoreline and their vulnerability to attack by an enemy fleet. The British had demonstrated this is during our Revolution.

In 1885, President Grover Cleveland appointed Secretary of War William C. Endicott to head a board charged with investigating the state of our coastal defenses and suggesting remediation of any weaknesses. The Endicott Board's report recommended that an industry be created to produce coastal defense cannons and that permanent fortifications be constructed at 27 different sites along our seaboard. One of these complexes would guard the eastern end of Long Island Sound. Not much was done since the country was a peace but as the Spanish-American War approached construction started.

Both Napatree and Fisher's Island were once part of the harbor defenses of the Long Island ports and New York City. Fort Mansfield was located at the western end of Napatree and Fort H.G. Wright occupied the western end of Fisher's Island.

Mansfield was activated in 1908 during the Spanish-American War and all but abandoned by 1908 due to its indefensible location. Its armament consisted of two 8 inch disappearing guns and some five inch secondary batteries.



*The deteriorating remains of Fort Mansfield occupies the tip of Napatree Point. Battery Wooster, which housed two 8 in guns is on the right and Battery Crawford, two five inch guns is left. Battery Connell and the many houses on the trombolo were destroyed by the Hurricane of 1938.*

Wright has a much longer career. The first

military use occurred in 1871 but at the start of the Spanish-American War, the 1886 Endicott Plans for the defense of Long Island Sound were implemented and construction of Coast Artillery emplacements. Over the next half century, a range of different armaments were installed in eight separate batteries ranging from 3 inch rapid fire guns guarding the minefields to the 12 inch and 10 inch disappearing cannons and a dozen 12 inch mortars. Plans were made to house two 16 inch naval rifles at Wilderness Point. After the emplacements were built, the plans were abandoned. The site now houses a US Navy facility.

*Elizabeth Airport is surrounded by the vestiges of Fort Wright.*

In World War II, Elizabeth Field hosted blimp Detachment 1-1, Airship Utility Squadron ZJ-1, out of NAS South Weymouth. The blimps monitored torpedo practice conducted by submarines based in Groton. A blimp mooring mast was still present on the field as late as the mid-50s.

*A wartime photo of two Blimps moored on Elizabeth Field.* *(US Navy Archives)*


During the last ice age, the ocean might be found as much as 100 mi. to the south of its present position and the Sound region was the glacial freshwater Lake Connecticut. When the spillway, in the vicinity of The Race, just west of Fisher's Island eroded, the lake emptied, and the next rise in sea level formed the salt water sound. Race Rock light marks this region of swift flowing tides and turbulent water.

*The western end of Fishers Island looking towards Race Rock Light. Note the wrecked vessel just of the point.*

However, the Connecticut coastline has been protected from the brute force of the open ocean by Long Island and this resulted in the rather small enclosed beaches. Compare these to the extended barrier island beaches visible due east along the coast of Rhode Island. These beaches are a product of the longshore current, the coast wise vector component of incoming waves, which transports and deposits sand to form the islands and the inner lagoons.

Between The Race and Great Gull, one might note the shallow waters at Valiant Rock named after HMS Valiant, a 74 gun warship which grounded there. Although dangerous grounds, fisherman note that this is a prime location to catch striped bass.

Ahead lie the Gull Islands. Tiny Little Gull houses a lighthouse but Great Gull, now a bird sanctuary, hosts the remains for Fort Michie. Michie housed five batteries of Coast Artillery cannons: two twelve inch and two ten inch disappearing guns three inch rapid fire guns, and one 16 inch gun.

*The abandoned amphitheater like 16 inch gun emplacement on Great Gull. The towers surrounding the site are probably for observing the birds.*

Leaving Great Gull, Plum Island passes to port. A small field just south of the laboratory was once the site of a grass airport. Interestingly, the island also once had a small steam locomotive used to transport munitions from the magazines to the batteries. .The island is now under the control of the Department of Homeland Security and access is severely limited. It is the site of the former Fort Terry whose eleven different batteries are still visible. The artillery ranged from a dozen 12 inch mortars to 16 other pieces from 10 inch disappearing guns to three inch defense cannons.

*Plum Island looking east with the Gulls in the background.. The laboratories are near the northwest shoreline.*

*Plum Island HQ and helicopter pad. The outline of the old airport is clearly visible.*

As the flight continues over Plum Gut, the body of water which separates the island from Orient Point, Gardiner's Island comes abeam to port. Gardeners was a 1839 feudal grant from King Charles I to Lyon Gardiner. Originally called the Isle of Wight, this was the first English settlement in New York. This island's manor house, windmill, and 5000 foot turf airstrip are clearly visible. Captain Kidd once left part of his loot in the care of a Gardiner and supposedly buried more and to this day, treasure hunters will land on the island in search of this reputed trove of precious metals and jewels. Copies of an antique map purporting to show the location of the buried pirate treasure may be obtained by request after transferring a sufficient number of doubloons to *The Coastwatcher's* off-shore account.

*Gardiners Island looking north to the Connecticut Coast. The airstrip is visible just north of the pond.*

During the 1970's and 1980's, when the Editor worked as a charter pilot for Yankee Airways out of the long gone Waterford Airport, we serviced the island flying the owners, Mr. and Mrs. Goelet, in from Flushing Airport, another lost field. We also carried in provisions and tankered fuel. Some of our pilots were allowed to hunt the abundant deer. During that period, an old Boy Scout buddy, Paul Spitzer, was working on his Ph.D in ornithology at Cornell and we flew him out to Gardiner's so he could check on the progress of his project to re-populate Long Island Sound with ospreys.

Between Gardiners and Orient Point stands a small patch of land graced by the ruins of Fort Tyler, another 1898 defense site. Tyler was once part of Gardiners but tidal flows eroded the neck of land. During World War II, it was used as a bombing target and the fort, subject to the effects of both bomb, tide, and storm, has been reduced to ruins. As late as the 1970s, it was the center of R-5202, a

restricted area used by Grumman to test aircraft from Peconic River-Calverton where they built and modified the F-111s, A-6s, and F-14s.

*The Ruins of Fort Tyler*

The patrol passes north of Gardiner's and Shelter Island, site of Westmoreland Airport, and crosses the North Fork of Long Island over the village of Greenport, a major whaling port during the first half of the 19th century and a center for shipbuilding.

*Westmoreland Airport welcomes day visitors. The downward sloping strip ends at a pond and can be treacherous when wet and touchdown speeds are high.*

*Greenport looking southwest. The Shelter Island ferry is visible as it makes one of its periodic crossings.*

On the large scale, Long Island itself is part of two terminal moraines. The Harbor Hill Moraine forms the north shore and north fork ending at Orient Point. The Ronkonkoma Moraine is the central spine of Long Island and extends out to Montauk Point forming the south fork of Long Island.

As you cruise along the northern shore of Long Island, you will observe the eroded bluffs of the Harbor Hill Moraine and several large boulder fields along the water's edge. If the weather is good, you may be able to see the barrier beaches and lagoons which form the south side of Long Island. Two interesting airports appear on the South Fork of Long Island. Rose Airport, an 1100 foot grass field is private and Mattituck used to house the Mattituck Aviation which produced top grade engine rebuilds. The eastern end of Long Island was once noted for its potato and duck farms. Development has since taken over and vacation homes, retirement communities and suburbia are replacing the extensive farmlands.

*Rose Airport is the short shoreline grass areas to the between the woods and the plowed field just right of center.*

The patrol heads out offshore and then, midway between Madison, CT and Mattituck, NY, makes a slight kink to the west southwest. The beaches are rocky and not hospitable and few craft are seen near this area. The interesting site is the Riverhead Oil Terminal, an offshore station at which a tanker or two might be seen transferring cargo.

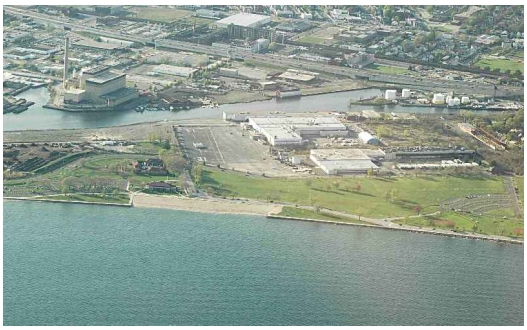
*The Riverhead facility can stone five million barrels of petroleum. It is the only deep-water off-shore site on the East Coast.*

Continuing on westward, when you in the vicinity

of Port Jefferson, the patrol turns north and heads to Connecticut at a point south of Bridgeport's. Sikorsky Airport. The field is located on the banks of the Housatonic River near Lordship Point and used to house the main plant which manufactured the Vought F4U Corsair. The plant then became a facility manufacturing tank engines for Avocet-Lycoming. It is home to the CTWG's Stratford Eagles Squadron.

*Bridgeport Harbor is readily identifiable by the red striped power plant stack. The inbound Port Jefferson Ferry service was started by none other than P.T. Barnum.*

*Bridgeport's Sikorsky Airport. The old aircraft factory buildings are in upper right.*



*The former Sikorsky plant before the move up the Housatonic.*

Sikorsky once maintained a plant just to the west at which they constructed their famous flying boats during the 1930's and their first helicopters. The short helicopter runways are still visible.

Tweed Airport is located on the east side of New Haven Harbor and hosts the Connecticut Minuteman Squadron of CAP. Just southwest of Tweed lies the USCG facilities which house the Sector Long Island radios to which we report. In the past, the series of coastal airports: Bridgeport, New Haven, Groton, Westerly and Charlestown Naval Air Facility, sometimes confused novice pilots.

*Coast Guard Sector Long Island Sound Base on the east side of New Haven Harbor.*

Turning eastward to parallel the Connecticut coast, places the Thimble Islands archipelago to port and Falkner Island, sometimes spelled Faulkner's, ahead. The Thimble Islands and Falkner Island are outcroppings of granite bedrock, good example of a glacially determined topological feature. They are drowned drumlins, hills formed by glacial action and then turned into islands by the subsequent rise of the sea and provide nesting sites for a number of affluent Connecticut citizens. Falkner Island is a bird sanctuary and provides nesting sites for a colony of roseate terns.

*The Thimble Island archipelago*

*Falkner Island*

Continuing our voyage eastward, one can view a plethora of small bays, alluvial deltas, and cobble beaches, all children of glacial activity modified by water and wind actions over eons.

Hammonassett State Park is a fine example of this type of topography. The former Griswold Airport in Madison passes by. Stories abound about the eccentric manager, Sherm Griswold. During its heyday, a seaplane air taxi service operated out of Griswold. The Daedalean Editor, who flew charter for Yankee Airways, recently met a Shoreline Aviation seaplane pilot who flew out of Madison in Ye Good Olde Days and we reminisced about Sherm and his habit of greeting the occasional visitor, his shotgun in hand!

Continuing east, the Connecticut River appears. The mouth of the Connecticut River is dominated by a sandbar which was formed as the result of the actions of the longshore current on the residue of a moraine. The river itself is a tidal estuary until you reach the falls near Windsor Locks. The sand bars at the mouth of the Connecticut River bear witness to its silt carrying abilities. The longest river in New England, it drops almost a half mile from its source in Connecticut Lake No. 4, 410 miles north, and delivers about three quarters of the freshwater input to Long Island Sound. The Fenwick section of Old Saybrook sits on the western bank. It is famed as the home of Katherine Hepburn. During the late 1930's, Howard Hughes conducted a torrid romance with Hepburn and would fly into Fenwick in a Sikorsky S-43 amphibian.

The next big bay is at Niantic, dominated on the eastern shore by the Millstone Nuclear Power Station. The power plant is located on the site of the old Millstone Quarry, a source of granite for many of the structures on the eastern United States coast. At one time, Hank Gardiner maintained a landing strip there at which he based a Bellanca with its unique triple tail.

*Hammonassett Beach on the left and Clinton Harbor on the right.*

*Millstone Nuclear Power Plant*

*The now abandoned Griswold Airport looking southwest.*

*Camp Niantic, Connecticut National Guard*

On crossing the Thames River, you pass the white strand of Ocean Beach and the white spire of the New London Light, the oldest one in Connecticut. To the southeast, the red brick superstructure of Ledge Light, mounted on a stained, white base guards the mouth of New London Harbor. New London was a major whaling and shipbuilding port. Today, it is home to the premier submarine builder, The Electric Boat Division of General of Dynamics Corporation, a U.S. Navy Submarine Base, The U.S. Coast Guard Academy, and a center for ferryboat service to Orient Point, Block Island, and Fisher's Island.

*New London Harbor-From top left clockwise to bottom-Fort Trumbull and the USCG Barque Eagle, downtown New London, Admiral Shear State Pier, the Amtrack and Gold Star bridges and on the east band, General Dynamics, the Hess Oil Terminal and the red striped stacks of Pfizers.*

The patrol ends with a landing at Groton-New London Airport, a former civilian field named after Governor Jonathan Trumbull, it was improved by the Army just prior to and during World War II. was a base for P-40s and P-47s. It is now home to the the Wing's Thames River Composite Squadron.

The region covered by the Long Island Sound Patrol is rich in both geological and social history and these two articles might serve as an introduction to the vast and wonderful details which await you if you take part in Connecticut Wing's Long Island Sound Patrol.

## AEROSPACE HISTORY

*RUNNING OUT OF NAMES?*

Appropriate popular names for aircraft are an important choice for a manufacturer or the military and sometimes these names are repeated as a tribute to the heritage of a company or military service.

Sometimes a name might be chosen and then run into trademark violations. The Piper PA-16 Clipper had a one year production run of less than 800 aircraft when Pan American Airlines, owner of the "Clipper" trademark in aviation protested. Piper then modified the aircraft adding flaps, a bigger engine, and other improvements and the PA-20 Pacer emerged from the ashes of the Clipper.

*Piper PA-16 Clipper*

*Piper PA-20 Pacer*

McDonnell Aircraft produced the FH-1 Phantom for the US Navy. It was twin engined and was the first pure jet to land on a US aircraft carrier. Its first flight was in 1945 and the last of them, flown by the USMC, retired in 1954. In 1958, the F-4 Phantom II made its first flight and soldiers on to this day in various air forces around the world.

*McDonnell FH-1 Phantom*

*McDonnell F-4S Phantom II is carrying a full suite of Sparrows on the wings and Sidewinders in the semi-recessed bays beneath the fuselage.*

Sometimes the name used by one company is reused by another. North American Aircraft built a USAAF dive bomber based on the P-51 Mustang design. It was designated as the A-36 Banshee and saw limited service in WWII. Two years after the end of the war, McDonnell Aircraft flew the F2H Banshee and it saw service with the USN and USMC for a decade and a half.

*The North American A-36A Banshee-note the extended dive brakes.*

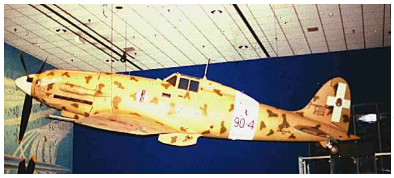
*McDonnell F2H-3 Banshee in Royal Canadian Navy livery.*

Then one might consider the case of a company which buys out another company. Fairchild Aircraft purchased Republic Aircraft. Republic produced the P-47 Thunderbolt in World War II. In the 1970s, the USAF accepted the Fairchild A-10 Thunderbolt II as its main ground attack and close air support aircraft. Those of you who are fluent in Italian or Japanese should not confuse these Thunderbolts with the Mitsubishi J2M *Raiden* (allied code name Jack) or the Macchi C.202 *Folgore*, both of whose names translate to "thunderbolt."

*Republic P-47N Thunderbolt at Chino. This one flies. Note the drip pan.*

*Massachusetts National Guard Thunderbolt II shows its form.*

*Mitsubishi's Raiden dresses with the red hinomaru and yellow thunderbolts.*



*The Macchi C.202 Folgore*

If you are really fluent in Italian, you might even translate the word "folgore" as lightning! This means that it has the same name as the Lockheed P-38 Lightning, known to the Germans as *Der Gabelschwanz Teufel* (Fork-tailed Devil). And we now have the Lightning in its present reincarnation, the Lockheed-Martin F-35 Lightning II.

*Lockheed P-38F with early USAAF roundels.*

*The Lockheed-Martin X-35C evolved into the Navy's F-35C Lightning II.*

Northrop developed the P-61 Black Widow, a twin engined, twin boomed night fighter with a passing resemblance to the P-38. Northrop became Grumman-Northrop but lost the name to Lockheed-Martin which manufactured the YF-23 Black Widow II. The YF-23 then lost the fly-off and the USAF contract to the F-22 Raptor.

*Northrop P-61C at the Museum of the USAF.*

*The YF-23, also at the USAF Museum nestles under the wing of the cancelled XB-70 Valkyrie.*


In some cases, the aircraft are not even in the same category. This is the case with the Piper PA-42 Cheyenne attack helicopter and the aborted Lockheed AH-56 Cheyenne.

*Piper Cheyenne III*

*Lockheed Cheyenne helicopter*

Another odd example also involves Piper and the PA-31 Navajo which carries the same popular name as the North American SM-64 Navaho, a supersonic cruise missile which was cancelled in favor of ballistic missile development. Note the difference in spelling.

*Navajo above and Navaho to the left*

Finally, let us close with Connecticut's Chance Vought F4U Corsair which willed its name to the Texas Ling-Temco-Vought Corporation's A-7 Corsair II.

*Above the F4U-4 in the Museum of the US Marine Corps, Quantico, Virginia and below, the A-7D Corsair II, affectionately know as "The SLUF" of the Ohio National Guard at Rickenbacker AFB. The Corsair II bears a passing resemblance to Vought's F8U Crusader but they are two different aircraft.*

The list goes on: Electra, Comanche, Arrow, Harpoon, and the Corsair line to name just a few.

Readers are invited to submit some examples of duplicate naming for publication.